# Analysis of Creativity Among Students Education Administration

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**Abstract** ---In leading an organization, a manager does more creative work. Creativity refers to the creation and development of new and better ways of doing an activity to effectively and efficiently achieve goals. This study determines the level of creativity using a quantitative descriptive method with 100 students of education administration in Universitas Negeri Padang as respondents. The data was collected using the instrument of creativity. The results show the creativity of students is in the medium category 34.95%. Therefore, there is a need to increase the creativity of educational administration students to support their expertise in management and administration in an organization.

Keywords--- Creativity, Education, Administration

#### Introduction

Nowadays, society requires individuals with the ability to manage organizations, including learning institutions [1, 2]. The need for graduates who have the skills and expertise in management science is in high demand. The Department of Education Administration in Indonesia prepares students with skills that make them competent administrators [3, 4]. The Educational Administration program produces graduates with job opportunities in the relevant teaching staff as stipulated in the Government Regulation of the Republic of Indonesia Number 38 of 1992 on Educational Personnel, Chapters II chapters 2 - 3 and Chapter VI articles 1920 [5, 6].

There are several qualifications educational administration students must possess. They need to apply these qualifications in education management, especially in problem-solving and adapting to the situation at hand [7, 8]. Individuals should be able to make decisions based on data analysis and guidance to help achieve organizational goals [9, 10].

Students are expected to have skills and expertise in management science and lead organizations at various levels. One of the most critical skills managers needs creativity [11]. According to Peter Drucker [12, 13], in leading an organization, a manager does both administration and creative work. Creativity is the ability to develop new ideas and find new ways to look at problems into business opportunities. The process of organizational creativity, according to starts from an idea which is automatically transformed into an innovative activity [14, 15].

According to Zimmerer and Scrborough [16, 17], creativity is the ability to develop new ideas and ways of looking at problems and opportunities. Webster's dictionary defines creativity as the ability to bring something new into existence. A. Roe [13, 18] established that creative individuals should have openness to experience, observance, seeing things in unusual ways, curiosity, accepting and reconciling apparent opposites, tolerance of ambiguity, independence in judgment, thought and action, needing and assuming autonomy, self-reliance, and risk-taking, not being subject to group standards and control, willingness to take calculated risks, and persistence.

Creativity is a multi faceted concept that refers to human actions or processes without outcomes that exhibit a certain kind of newness, which is insufficient [19, 20]. Creativity implies an element of intentionality and not merely a matter of complete chance. It is also an evaluative concept since it confers a positive evaluation of the activity in question [14, 21]. Typically, it leads to a product, or artifact, or state of affairs or new understandings that emerge as a result of the activity [22, 23]. However, creativity lies not solely in the new artefact, state of affairs or understandings, but in the likelihood that a new and valued artefact or state of affairs is liable to emerge from a particular process or practice [10, 24].

Creativity plays a critical role in an organization's system [25, 26]. In response to the changing conditions, creative steps are always taken by organizations, such as the improvement or innovation in surveillance method, production, and layout of offices and factories to be more efficient, new marketing ideas, and products' creativity [10, 27]. In developing creativity, organizations need creative and analytical thinking [28]. Creative thinking is necessary for the organization in the inception stage of each idea [29]. When the ideas are to be implemented, organizations need peoples with creativity [30].

## Analysis of Creativity Among Students Education Administration

# Method

This study uses a quantitative descriptive method with 100 education administration students in Universitas Negeri Padang as respondents. The collection of data was based on the instrument of creativity. A Likert scale was used to measure creativity based on very high, high, medium, low, and very low categories. The instrument also measures creativity based on attitudes toward problems and new things, the environment, dynamics, expressive and communication capabilities, attitudes, and dynamics at work, freedom, confidence, and perseverance, authenticity and achievement, commitment to togetherness, values, and morals. The instrument went through the stages of validity and reliability to prove its workability. Research data can be accessed at the following link https://osf.io/m4dha/. The findings of this study were analyzed using descriptive statistics with the help of JASP (Jeffrey's Amazing Statistics Program) software.

# **Result and Disscusion**

The results show that student creativity is in the medium category. A more detailed description is shown in Table 1 below.

Category	Interval	F	%	
Very High High	<310 271-291	13 27	12,62 26,21	
Moderate	250-270	36	34,95	
Low	229-249	19	18,45	
Very Low	<229	5	4,85	

# Table 1. Student Profile of Educational Administration CreativityN=100

Table 1 shows that 34.95% of the students have moderate creativity. Meanwhile, 26.21% and 12,62% had high and very high creativity, respectively. However, some students had creativity in very low and low categories. The overall student creativity was in the medium category. The results show that creativity is an essential point in the development and empowerment of human resources. Students can compete and interact with others in the workforce [28, 31]. The development of creativity was conducted in the last decade by teaching and learning creativity, psychoeducation correlation, and role in organizations, as well as cognitive and affective processes. Table 2 shows students' creativity indicators.

Table 2.Student Creativity Administration Per Indicator

No	Indicator	Category	F	%
1.	Attitudes toward problems and new things	Moderate	60	58,25
2.	Attitudes to the Environment, Dynamics, Expressive and	Moderate	75	72,82
	Communication Capabilities			
3.	Attitudes and Dynamics at Work	Moderate	71	68,93
4.	Freedom, Confidence, and Perseverance	Moderate	60	58,25
5.	Authenticity and Achievement	Moderate	65	63,11
6.	Commitment to Togetherness, values, and morals	High	51	49,51

Table 2 shows that in the attitudes toward 1) problems and new things, 60 individuals (58.25%) are in the medium category; 2) the environment, dynamics, ability to express and communicate, 75 (78.82%) are in the medium category; 3) the dynamics in working, 71 (68.93%) are in the medium category; 4) freedom, belief, and determination, 60 (58.25%) are in the medium category; 5) authenticity and achievement, 65 people (63.11%) are in the medium category, and 6) commitment to togetherness, values, and morals, 51 (49.51%) are in the high category.

# Table 3. Creativity Score Based on Gender

#### **Descriptive Statistics**

2	Creativit	Creativity Score			
	Men	Women			
Valid	81	19			

	Creativity Score		
	Men	Women	
Missing	0	0	
Mean	283.778	287.526	
Std. Deviation	21.801	18.485	
Minimum	229.000	262.000	
Maximum	330.000	323.000	

#### **Descriptive Statistics**

**Creativity Score** 



Table 3 shows that the average score of women's creativity is higher than that of men. The difference between the average score of female and male creativity was not significant (figure 1). Figure 2 shows that the data are related to gender and age are normally distributed.

<b>Table 4.</b> Creativity	Score	Based	on .	Ages

Descriptive Statistics									
	Creativity Score								
	18 year	19 year	20 year	21 year	22 year	24 year	25 year	17 year	23 year
Valid	43	19	17	8	5	1	2	4	1
Missing	0	0	0	0	0	0	0	0	0
Mean	280.000	296.737	279.176	290.125	293.600	306.000	290.500	280.000	229.000
Std. Deviation	22.884	17.486	13.216	16.848	27.190	NaN	16.263	10.488	NaN
Minimum	238.000	262.000	246.000	271.000	256.000	306.000	279.000	271.000	229.000
Maximum	325.000	328.000	296.000	317.000	330.000	306.000	302.000	293.000	229.000

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Figure 2. Homogenitas Score of Creativity

Table 4 shows that the average score of students' creativity is at 24 years old is higher than the other ages. Therefore, students who almost complete their studies have higher creativity than new ones. Creativity, in terms of gender, has no significant difference. Additionally, the average score of creativity of women is higher than men. This is in line with a previous stud that established that increased levels of female creativity are associated with mood levels and interpersonal disorders in women[32]. Other findings showed no significant differences in the creativity between women and men [33]. Studies with slight differences indicate that certain external factors have specific effects, such as the presence of extrinsic motivators. This is due to a neurological response when an appreciation of the results of extrinsic motivation is given[34]. Other findings show that men and women have the same level of creativity[35].

According to a previous study, individual creativity increases with age[36]. In this millennial era, creativity in students is related to digital aspects, such as creating applications for mobile devices, creating multimedia projects in class, and writing a personal blog[37]. The factors affecting individual creativity are influenced by awareness, openness, and flexibility with relatives[36]. Creativity is also influenced by the stimulus given, for example, in childhood games[38]. Also, young employees were considered more creative when faced with negative influences[39]. Younger individuals can enjoy higher activities, such as assignments [40]. This condition may increase individual productivity and bring up creative ideas. Physical factors also influence the emergence of individual creativity. In case, there is a decrease in neurotransmitters, memory, attention capacity, and concentration can reduce[41]. Suppose the neurotransmitter is impaired, the development of individual creativity can be disrupted [42].

Creativity is a person's ability to produce special achievements in creating something new based on material, information, data, or pre-existing elements. It involves several aspects, such as meaningful things, solving unique problems, new ideas, and possibilities [22, 30, 43]. Creative people can change existing products into unique products or bring up unique products, including response to problems [31, 44]. Cognitive characteristics include originality, flexibility, fluency, and elaboration. Contrastingly, non-cognitive characteristics include motivation, attitude, and creative personality. Non-cognitive traits are critical and cannot develop without being supported by an appropriate personality [45, 46].

#### Conclusion

The overall data shows that the creativity of students, 34.95%, is in the medium category. With the score of 72.82%, the attitudes to the environment, dynamics, expressive, and communication capabilities aspects are in the high category. However, there is a need to increase the creativity of students in educational administration.

## References

- V. Ndou, "E-Government for developing countries: opportunities and challenges," *The electronic journal of information systems in developing countries*, vol. 18, pp. 1-24, 2004.
- [2] B. J. Jackson, Construction management jumpstart: the best first step toward a career in construction management: John Wiley & Sons, 2020.

- [3] S. Marginson and E. Sawir, "University leaders' strategies in the global environment: A comparative study of Universitas Indonesia and the Australian National University," *Higher Education*, vol. 52, pp. 343-373, 2006.
- [4] M. Muhaimin, Manajemen Pendidikan (Aplikasinya dalam Penyusunan Rencana Pengembangan Sekolah/Madrasah): Prenada Media, 2015.
- [5] M. Kristiawan, et al., "Supervisi Pendidikan," Bandung: Alfabeta, 2019.
- [6] R. Ananda, "Profesi pendidik dan tenaga kependidikan (Telaah tehadap pendidik dan tenaga kependidikan)," ed: Lembaga Peduli Pengembangan Pendidikan Indonesia (LPPPI), 2018.
- [7] T. L. Jarvis, "A mixed methods analysis on Creative Leadership and Missouri School Administrators," Lindenwood University, 2015.
- [8] V. Arán Filippetti and G. Krumm, "A hierarchical model of cognitive flexibility in children: Extending the relationship between flexibility, creativity and academic achievement," *Child Neuropsychology*, pp. 1-31, 2020.
- [9] A. Hengpiya and S. Sa-u, "HIKMAH Training Model: Fostering Creative Leadership for School Administrators of Islamic Private Schools in Southern Province of Thailand," *AL-NUR JOURNAL OF GRADUATE SCHOOL, FATONI UNIVERSITY,* vol. 14, pp. 125-141, 2019.
- [10] G. Calic, *et al.*, "Subjective semantic surprise resulting from divided attention biases evaluations of an idea's creativity," *Scientific Reports*, vol. 10, pp. 1-12, 2020.
- [11] E. M. Berman, et al., Human resource management in public service: Paradoxes, processes, and problems: CQ Press, 2019.
- [12] S. A. Zahra, "The practice of management: Reflections on Peter F. Drucker's landmark book," *Academy of Management Perspectives*, vol. 17, pp. 16-23, 2003.
- [13] R. Sunley, *et al.*, "Realising creativity in management education: Putting student energy into action," *The International Journal of Management Education*, vol. 17, pp. 172-181, 2019.
- [14] V. Ellis and A. Childs, "Innovation in teacher education: Collective creativity in the development of a teacher education internship," *Teaching and Teacher Education*, vol. 77, pp. 277-286, 2019.
- [15] T.-T. Wu and Y.-T. Wu, "Applying project-based learning and SCAMPER teaching strategies in engineering education to explore the influence of creativity on cognition, personal motivation, and personality traits," *Thinking Skills and Creativity*, p. 100631, 2020.
- [16] E. Kabukcu, "Creativity process in innovation oriented entrepreneurship: The case of Vakko," *Procedia-Social and Behavioral Sciences*, vol. 195, pp. 1321-1329, 2015.
- [17] C. Duong, *et al.*, "The impact of individual and environmental characteristics on students' entrepreneurial intention," *Management Science Letters*, vol. 10, pp. 599-608, 2020.
- [18] J. Whalley and H. Ogier, "Paperclips, Circles, and Six-Legged Spiders: An exploration of selfperceived and measured creativity among CS students," in *Proceedings of the Twenty-Second Australasian Computing Education Conference*, 2020, pp. 11-20.
- [19] R. Barnett, "Towards the creative university: Five forms of creativity and beyond," *Higher Education Quarterly*, vol. 74, pp. 5-18, 2020.
- [20] T.-h. Blank and E. Naveh, "Managing Creativity and Process Tensions in Innovation," *IEEE Engineering Management Review*, 2019.
- [21] S. Bailin, *Achieving extraordinary ends: An essay on creativity:* Springer Science & Business Media, 2012.
- [22] A. Ghafoor and J. Haar, "A Climate And Personality Approach Towards Creativity Behaviours: A Moderated Mediation Study," *International Journal of Innovation Management*, p. 2050080, 2020.
- [23] G. Isikci-Baskaya and S. Sevimli-Celik, "Perceptions towards creativity and creativity related concepts by metaphor analysis," *Ilkogretim Online*, vol. 19, 2020.
- [24] J. P. Ferguson and V. Prain, "Revisiting Peirce's account of scientific creativity to inform classroom practice," *Educational Philosophy and Theory*, pp. 1-11, 2019.
- [25] V. Ratten and P. Usmanij, "Entrepreneurship and Organizational Change: Managing Innovation and Creative Capabilities," in *Entrepreneurship and Organizational Change*, ed: Springer, 2020, pp. 1-6.
- [26] A. Rudawska, "Knowledge Sharing and Creativity: Individual and Organizational Perspective," in *Contemporary Challenges in Cooperation and Coopetition in the Age of Industry 4.0*, ed: Springer, 2020, pp. 107-121.
- [27] T. Claussen, *et al.*, "Socio-technics and beyond: an approach to organisation studies and design in the second machine age," *European Journal of Workplace Innovation*, vol. 4, 2019.
- [28] D. Hernández-Torrano and L. Ibrayeva, "Creativity and education: A bibliometric mapping of the research literature (1975–2019)," *Thinking Skills and Creativity*, vol. 35, p. 100625, 2020.
- [29] K. Maani, "System dynamics and organizational learning," *System Dynamics: Theory and Applications*, pp. 417-430, 2020.

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- [30] A. Royalty, *et al.*, "Reflective Tools for Capturing and Improving Design Driven Creative Practice in Educational Environments," in *Design Thinking Research*, ed: Springer, 2020, pp. 49-65.
- [31] G. E. Corazza and V. P. Glăveanu, "Potential in creativity: Individual, social, material perspectives, and a dynamic integrative framework," *Creativity Research Journal*, pp. 1-11, 2020.
- [32] P. L. Bender, *et al.*, "Possible LISA follow-on mission scientific objectives," *Classical and Quantum Gravity*, vol. 30, p. 165017, 2013.
- [33] A. Abraham, "Gender and creativity: An overview of psychological and neuroscientific literature," *Brain imaging and behavior*, vol. 10, pp. 609-618, 2016.
- [34] N. Volf and I. Tarasova, "The influence of reward on the performance of verbal creative tasks: behavioral and EEG effects," *Human Physiology*, vol. 39, pp. 302-308, 2013.
- [35] E. Partridge, "Dismantling the gender binary in elder care: Creativity instead of craft," in *Gender and Difference in the Arts Therapies*, ed: Routledge, 2019, pp. 196-206.
- [36] S. Haller, Dienstleistungsmanagement: Grundlagen–Konzepte–Instrumente: Springer-Verlag, 2017.
- [37] J. A. Maertens, *et al.*, "Isavuconazole versus voriconazole for primary treatment of invasive mould disease caused by Aspergillus and other filamentous fungi (SECURE): a phase 3, randomised-controlled, non-inferiority trial," *The Lancet*, vol. 387, pp. 760-769, 2016.
- [38] K. K. Fehr and S. W. Russ, "Pretend play and creativity in preschool-age children: Associations and brief intervention," *Psychology of Aesthetics, Creativity, and the Arts,* vol. 10, p. 296, 2016.
- [39] A. Volmer, *et al.*, "Head protection device, communication unit, connection unit and system comprising head protection device, communication unit and connection unit," ed: Google Patents, 2019.
- [40] C. K. De Dreu, *et al.*, "Hedonic tone and activation level in the mood-creativity link: toward a dual pathway to creativity model," *Journal of personality and social psychology*, vol. 94, p. 739, 2008.
- [41] L. Gonçalves, *et al.*, "Structural and ultra-structural features of the first mandibular molars of young rats submitted to pre and postnatal protein deficiencies," *The open dentistry journal*, vol. 3, p. 125, 2009.
- [42] C. Videla and J. Ochoa, "The Phenomenon in Old Age Creativity as a Vehicle to Improve Quality of Life," *MOJ Gerontol Ger*, vol. 2, pp. 283-284, 2017.
- [43] Q. Zhang, *et al.*, "Creative leadership strategies for primary school principals to promote teachers' creativity in Guangxi, China," *Kasetsart Journal of Social Sciences*, 2018.
- [44] S. Lu, *et al.*, "Pitching novel ideas to the boss: The interactive effects of employees' idea enactment and influence tactics on creativity assessment and implementation," *Academy of Management Journal*, vol. 62, pp. 579-606, 2019.
- [45] L. S. Almeida, et al., "Torrance Test of Creative Thinking: The question of its construct validity," *Thinking Skills and Creativity*, vol. 3, pp. 53-58, 2008.
- [46] M. Gube and S. Lajoie, "Adaptive Expertise and Creative Thinking: A Synthetic Review and Implications for Practice," *Thinking Skills and Creativity*, p. 100630, 2020.